

REMARKS

In complete response to the outstanding Official Action of May 13, 2008, on the above-identified application, reconsideration is respectfully requested. Claims 27 and 29 - 45 remain in this application. In this amendment, claims 28 and 46 - 61 are cancelled without prejudice.

Claim Rejections Under 35 U.S.C. § 112

Claim 27, and presumably claims 46 – 61, has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the term ‘various streams’ is used and lacks antecedent basis. Claim 27 has been amended to remove this term, and claims 46 – 61, which also referenced this term, have been cancelled without prejudice.

Claim Rejections Under 35 U.S.C. § 103

Claims 27-40 and 42 – 47 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nataraj ‘472. Applicant respectfully submits that claims 27-40 and 42 – 47 are not unpatentable over Nataraj ‘472.

The Examiner notes that Nataraj does not teach the temperature range of between 871° and 1300° C for the oxidizing mixture prior to the reforming step. The Examiner then notes that “Nataraj discloses heating oxygen-containing gases by direct combustion with a fuel gas” and that this temperature falls within the range. Applicants would like to respectfully point out that explicitly points out that:

“Heated oxidant **41** and heated partially reformed intermediate gas **25** are introduced into respective oxidant and reactant inlets to mixed conducting membrane reactor **43**. Heated oxidant **41** is at a temperature preferably within $\pm 200^{\circ}$ F of the temperature of heated partially reformed intermediate gas **25** at the inlet to mixed conducting membrane reactor **43**. The gas temperature at the reactant inlet is in the range of about 1100 to 1400° F. (594 to 760° C).”
(column 12, lines 53 – 60)

Hence, according to the teaching of Nataraj, the heated oxidant stream 41 should be no hotter than 871° C (i.e. 760° C + 111° C), and hence neither teaches nor suggests the 1000° C temperature required by claim 27 as currently amended.

As discussed above, Nataraj '472 fails to teach or suggest all the features present in claim 27 as currently amended, upon which claims 28 – 40 and 42 - 45 are dependent. Hence this rejection, as pertains to claim 27, and claims 28 – 40 and 42 - 45 which are dependent upon claim 27, is moot and should be withdrawn. Claims 46 and 47 have been cancelled, thereby rendering this rejection moot as pertains to these claims.

Claim 41 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Nataraj '472 in view of Prasad '984. Applicant respectfully submits that claims 27-40 and 42 – 47 are not unpatentable over Nataraj '472. As discussed above, Nataraj '472 fails to teach or suggest all the features present in claim 27 as currently amended, upon which claim 41 is dependent. Prasad '984 fails to remedy this deficiency. Hence, this rejection is rendered moot as pertains to claim 41.

Claims 48 - 61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nataraj '472 in view of Holm-Larsen '631. Claims 48 – 61 have been cancelled, thereby rendering these rejections moot as pertains to these claims.

CONCLUSION

In view of the current amendments, the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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